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GUIDELINES

FOR AN

ENVIRONMENTAL IMPACT STATEMENT

OF THE EXPANSION TO THE

ROBERTS BANK BULK-HANDLING FACILITY

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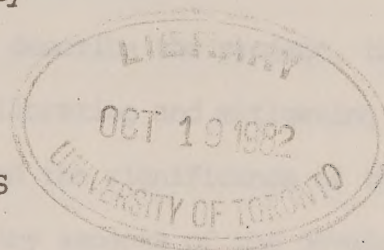
ROBERTS BANK BULK-HANDLING FACILITY

Canada

C O N T E N T S

GUIDELINES FOR AN ENVIRONMENTAL IMPACT STATEMENT

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PROPOSED ROBERTS BANK EXPANSION

GUIDELINES FOR AN

ENVIRONMENTAL IMPACT STATEMENT

1. OVERVIEW SUMMARY

The overview summary should consolidate the important findings of the report and should be written in such a manner as to allow reviewers to focus immediately on items of concern. It should be written in terms understandable to the general public and in a format that allows it to be extracted directly for publication by the media, or for use by senior executives requiring a quick appraisal of the situation.

The overview summary should briefly describe the project, the probable major environmental impacts, the ameliorating and mitigating measures to be implemented by the assessor, and the significance of the residual unmitigated environmental impacts. Any aspects of the development which might stimulate public concern should be described with particular clarity. The summary should also clearly identify data gaps or knowledge deficiencies, and the limitations they have imposed on the Environmental Impact Statement.

2. PROJECT PROPOSAL

2.1 Rationale

State reason why expansion is proposed. Discuss the existing situation and future trends in bulk commodity packaging, handling and transportation; type, size and number of bulk carriers; facilities needed for their loading and accommodation on an international, national, and regional basis. Provide an inventory of industries and their products by type and volume for which bulk loading facilities are required, and forecast bulk loading demands by these industries in

western Canada within the next 10 years. State lead time required to accommodate forecasted demand.

2.2 Alternatives

Provide an inventory of existing bulk loading facilities, within and outside the jurisdiction of the National Harbours Board in the regional context. Discuss the capacities of facilities within the jurisdiction of the National Harbours Boards, utilization and limitations in terms of constraints imposed by physiographic, environmental (climatic, oceanographic, biological) and economic and social factors (lack of development, competing land use schemes, land use commitments). Discuss potential capacity of existing facilities if their utilization was optimized by a systems approach and the limiting factors in achieving that potential.

Provide an inventory of potential National Harbours Board sites for bulk loading on the West Coast including sites presently used for other cargo but which through upgrading and diversification could accommodate bulk cargo.

2.3 Sponsorship

Provide a statement of responsibility for the information provided, for conclusions drawn and recommendations made in the Environmental Impact Statement.

2.4 History of the Roberts Bank Facility

Give a brief history of the facility including: the original rationale of the development; the reasons for choosing the site on Roberts Bank; the actual developments that have taken place at Roberts Bank; and the relationship of the facility to long range development concepts and plans.

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Give a brief description of the past and current use of the facility including: the present commodities handled, their volume, form and anticipated duration; the present utilization of the facilities including bulk loading areas, stockpile sites, supporting ground transportation networks and water supply; the versatility of the existing facilities to accommodate a range of ocean carriers and a range of bulk commodities.

Give a brief outline of the operation of the facility including: ongoing maintenance dredging, instituted environmental protection measures with regard to such aspects as storage and handling of bulk commodities; lighting; and dock clean-up.

Give a brief outline of the management of the facility including a discussion of the jurisdictional responsibilities for management of the complex including: bulk loading dockage, causeway and access routes.

2.5 Project Plans

Practical alternative project designs shall be discussed in terms of their advantages and disadvantages. The timetable required for the construction of the proposed expansion to meet projected demands shall be shown.

Maps of the proposed development area shall be included. At least two illustrations shall accompany the assessment report; a small scale map of the development area showing its location relative to major geographical features and a detailed plan providing all aspects of the proposed development on a large scale. Sets of plans should be included for each alternate design considered.

A description of the proposed development shall be given. The present proposal and future potential developments should be described here. The description should include details on the site and its surroundings before and after development.

Associated projects, programs or commitments may be influenced by or be dependent upon the proponent's project, but may not be under the proponent's control (e.g. the development of an industrial park may be dependent upon the development of the proposed harbour). In order to assess the total environmental effects on the area, it is necessary to have some general concept of associated projects, programs or commitments. For example, the interaction between the proposed port expansion and established sea dyking programs; existing or proposed submarine cables, gas pipelines, shipping lanes, etc. Also included should be a forecast of future demands for services.

A description in some detail of the component activities associated with construction, operation and maintenance shall be included. It would include size and location of docks, turning basins, dredging both inshore and offshore and disposition of spoil, fill sources, transportation facilities, permanent buildings, ballast and sewage and other disposal.

Discuss the commodities to be handled according to their variety and quantities, their origin and destination.

Public information programs, planned or underway, should be described. Outline results of public discussions that have taken place on the environmental effects of the proposed development.

3. ENVIRONMENTAL IMPACTS IN RELATION TO
ENVIRONMENTAL, ECONOMIC AND SOCIAL VALUES

The assessment of short and long term potential impacts shall be made on the basis of information collated from existing sources and on information collected in the field to supplement what is available.

Deficiencies resulting from data gaps or existing inadequate information shall be identified together with the limitations they have imposed upon the Environmental Impact Statement.

Potential environmental impacts in the area to be affected by the proposed development shall be discussed in terms of existing environmental, economic and social values and shall be identified in the design, construction, operation and maintenance phases of the project. These values shall be considered as international, national, regional, local or site-specific.

Information that may be required to carry out a satisfactory assessment shall include but shall not necessarily be restricted to topics below. Options and measures available to avoid, minimize or mitigate harmful effects and to enhance beneficial effects shall be investigated and discussed under each topic. Impacts identified as major (more important) shall be discussed in detail in Section 4.

Consider and discuss potential environmental impacts in the area to be affected by the proposed development and ancillary or spin-off developments in terms of:

3.1 Climate

Consider and discuss the following: temperature (daily and seasonal variation, extremes); winds (velocity, frequency, direction and duration of critical wind speeds); precipitation (kind, amount, duration, frequency); incidence of fog (kind, duration, frequency); temperature inversions (type and intensity) as they relate to dispersal of

atmospheric pollutants and other potential causes of environmental impact.

3.2 Terrain

Consider land suitability and land capability. The information would best be presented on maps of sufficiently large scale.

Show important landforms, bedrock formations, surficial deposits, mineral resources, soils, in terms of their suitability for the proposed development erosion and slumping characteristics. On a composite topographic map show land capability in terms of agriculture, forestry, wildlife, fisheries, and recreation.

3.3 Water

Consider the quantity and quality of fresh water and marine waters around the proposed development. Oceanographic information such as existing currents should be documented and currents, after the proposed development, should be forecast.

3.4 Flora

Consider in terms of communities and their rarity and susceptibility, terrestrial, intertidal and marine plants. Consider plant communities by species composition, their relative abundance and their importance to fauna as habitat and food species.

3.5 Fish and Wildlife

Consider the species of fish, amphibians, reptiles, birds and mammals whose habitat fall within the proposed development. Specific data on those species characteristic of the area should be assembled.

Significant species may be defined as rare or endangered or commercially, scientifically or recreationally important. The main factors in the life cycles of the more important species should be identified, e.g.

nesting or spawning areas, nursing areas, staging areas, wintering areas, etc.

3.6 People

Consider distribution and characteristics of the human population (life patterns, communities, employment, public facilities, housing). Outline and discuss the cultural, social and economic setting of the general area.

3.7 Land and Resource Use

Document existing land use and show same on a map of appropriate scale. Document ownership (public, private or special status) of adjacent land.

Describe status of regional plans (projected changes - supply and demand for land and water) and areas of potential special status. Consider effects on: present land uses and projected future land uses; historical and archaeological features; fishing, shipping, boating and harbour fronting activities as applicable to commercial and recreational interests and values; projected related urban and regional development.

Outline traditional land use patterns (native hunting, trapping, fishing and areas of religious significance) and identify archaeological and historic sites.

3.8 Aesthetics and Recreation

Consider the visual resources of the area; give an inventory of unique physical features.

Consider recreational use (hunting, fishing, nature study, water sports); discuss potential recreational use.

Discuss economic benefits of local tourist industry.

3.9 Summary

Summarize concerns raised and options and measures available to alleviate those concerns. Identify major concerns for detailed discussion in the following section.

4. MAJOR IMPACTS AND MITIGATING MEASURES

Discuss those long and short term environmental impacts that enhance, disrupt, impair or destroy existing features, conditions or processes in the natural environment; or cause enhancement of, or conflict with, established, traditional or historic land use and ways of life; or interfere with the livelihood of segments of the human inhabitants (deleterious as well as beneficial impacts).

Discuss mitigating or ameliorating measures that can eliminate or reduce the severity of deleterious impacts through changes in location and design of facilities, the scheduling of associated activities, the rehabilitation of impaired features, or through the environmental education of the construction and operational staff. Where applicable, measures to enhance beneficial impacts will be identified and discussed.

Discuss contingency plans to be effected in case of major accidents involving the loading facility, its associated facilities and vessels using the facility.

Discuss in detail all major impacts and the appropriate mitigating measures. Items that may be of concern are included in but not necessarily restricted to the following list: (A general statement of intent with respect to various phases of the proposed development may keep the discussion from being repetitious).

Removal of land (required for the proposed development and its

ancillary facilities) from existing and potential uses will be detailed.

Potential conflicts with commercial and recreational use of adjacent waters (i.e. commercial and recreational fishing, hunting, boating, shipping) and increasing chance of accidents will be identified and discussed.

Impairment or destruction of marine and intertidal environments through: marine pollution; alterations in circulation, water properties, sedimentation and erosion; effects on vegetation and benthic and littoral organisms including extent, timing and utilization of areas by fish species at various life stages; effects on marine mammals.

Impairment or destruction of Terrestrial Environment through: effects on vegetation communities vis-à-vis natural and commercial values; effects on upland wildlife and migratory bird habitats and species.

Impairment of the atmospheric environment by airborne pollution resulting from the storage and handling of (non-containerized) bulk commodities and the resultant impairment of affected areas.

5. RESIDUAL IMPACTS

Discuss impacts that will remain after all practicable mitigating measures have been incorporated into the development proposal. State nature, extent and duration of all such impacts in the environmental, economic and social sphere and in the international, national, regional, local and site specific context.

6. REFERENCES AND STUDIES

6.1 References

An annotated list of references cited will be attached as Appendix I.

6.2 Study Requirements

A list of studies proposed in order to resolve data deficiencies (where this is deemed necessary) will be attached as Appendix II.

